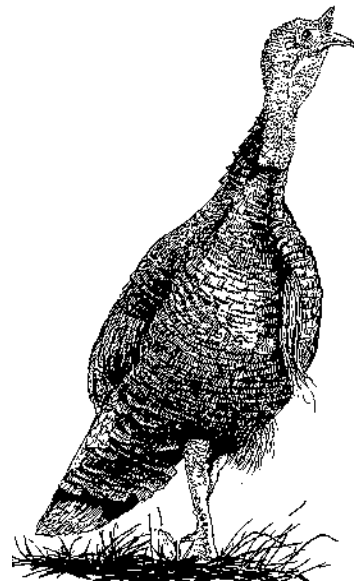

Turkey Hunting in New York: Hunter Activities and Views on Regulations



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This publication is one of a series of reports resulting from investigations dealing with public issues in environmental and natural resources management. The Human Dimensions Research Unit (HDRU) in the Department of Natural Resources at Cornell University studies the social and economic aspects of natural resources and the environment and the application of social and economic insights in management planning and policy. A list of HDRU publications may be obtained by writing to the Human Dimensions Research Unit, Department of Natural Resources, Fernow Hall, Cornell University, Ithaca, NY 14853, or by accessing our World Wide Web site at: <http://www.dnr.cornell.edu/hdru>.



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EXECUTIVE SUMMARY

DEC has two primary goals related to turkey management: (1) protect the longterm security of the wild turkey population and (2) maintain opportunities for turkey hunters and others to enjoy the wild turkey resource now and in the future. Achieving those goals simultaneously has become more difficult in recent years. Several indicators suggest that the turkey population is declining statewide (DEC 2013). In coming years, changes in turkey hunting regulations may become necessary to adjust to a changing management environment. But regulation changes designed to achieve turkey population objectives may entail tradeoffs that affect hunter perceptions of hunting season quality, or other impacts that affect hunter satisfaction. DEC needs information from hunters to better understand how regulation changes may affect hunter satisfaction, especially among hunter subgroups (e.g., spring hunters, fall hunters).

In January, 2013, New York State turkey hunters were invited to participate in a mail survey, conducted by Cornell University researchers, focused on turkey hunting activities and satisfactions in 2012. This report summarizes findings from the survey of 2012 turkey hunters.

METHODS

Sampling

- DEC provided access to a listing of all 2011–12 hunting license holders in New York between age 18 and 80, from which we drew a stratified random sample of 5,000 hunters. We drew a random sample of 1,000 hunters in each of five geographic areas corresponding to fall turkey hunting zones (i.e., (1) Western New York, (2) Lake Plain, (3) Northern New York, (4) Southeastern New York, and (5) Long Island).

Survey instrument

- To address study objectives, we developed a 12–page self–administered questionnaire. To characterize turkey hunters’ activities, motivations, and satisfactions (study objective 1), we asked hunters about: hunting effort and practices; methods and equipment used; harvest success; type of land hunted, motivations for hunting in spring or fall only, and background information on the hunters themselves. We also inquired about participant’s overall satisfaction with their last turkey hunting season and existing regulations.
- To characterize hunter opinions related to spring and fall hunting regulations and hunter safety (study objective 2), we asked respondents whether they agreed or disagreed with 25 statements about current or potential turkey hunting regulations. We also asked whether they agreed or disagreed with 3 statements related to hunter safety.

Survey implementation

- We implemented the survey mailings between January 29, 2013 and February 26, 2013. Each member of the sample was contacted up to four times. The Survey Research Institute at Cornell University (SRI) completed telephone surveys with 50 nonrespondents in each geographic area (250 interviews total). HDRU provided SRI with contact information for all nonrespondents. From that group, SRI randomly selected 1,264 hunters to be contacted by

phone. Calls were made until the target number of 50 interviews per area was completed. Data collection began on April 15, 2013 and was completed on May 16, 2013. Nonrespondent telephone interviews were approximately 5 minutes in duration and included eight questions asked in the mail survey.

Weighting the data:

- We sampled an equal number of turkey hunting permit holders in each geographic area (n=1,000), even though permit holders are not equally distributed across the state. This raises the possibility of sampling bias. To address that possibility, we developed weighting factors for each area and applied those to responses based on respondent's county of residence.

Findings Highlights

- A total of 2,247 completed questionnaires were returned (46% response). 25% (n=558) of respondents reported that they had never hunted turkey (i.e., were not part of the target population), reducing the useable response to 1,654 hunters.

General characteristics and comparisons to 1993 turkey hunters

- In 1994, DEC sponsored a statewide survey that characterized the activities and satisfactions of turkey hunters during the 1993 license year. We compare characteristics of 1993 and 2012 turkey hunters throughout this report.
- Findings suggest that the average age of turkey hunting permit holders is higher now than it was when New York State turkey hunters were surveyed in 1994. When hunters age 26 or older are compared, about 23% of 1993 turkey hunters were over 55 years old, whereas over 50% of 2012 turkey hunters were over 55.
- The majority (62%) lived in rural areas (47%) or villages of under 5,000 people (15%). Few (13%) belonged to turkey hunter organizations.
- Approximately half of the respondents (51%) had hunted turkeys for 11 or more years (27% had hunted for 1–5 years), a marked increase from 1993, when only 20% had hunted for 11 or more years (in 1993, a majority of permit holders had hunted turkeys for 1–5 years).
- Over the last 5 years, participants spent an average of 8 and 7 days hunting during the spring and fall seasons, respectively. A majority of participants (53% and 57%, respectively) reported that the trend in number of days they hunted in spring and fall had remained steady over the last 5 years, but nearly one-third of spring and fall season participants said their level of turkey hunting effort had decreased over the last five years.
- Findings suggest that the proportion of turkey hunters who go afield only during the spring season is higher now than it was when New York turkey hunters were surveyed in 1994. Of hunters who were active in 2012, 40% hunted during the spring only, 49% hunted both the spring and fall seasons, and 11% hunted only during the fall season. Of hunters who were

active in the 1993 license year, 32% hunted spring only, 55% of respondents hunted both seasons, and 13% hunted fall only.

- When asked why they participated only in spring season, the most frequent response from spring-only hunters was, “I would rather hunt for other game in the fall” (72%), “I prefer hunting turkey only in the spring” (47%), or “I didn't have enough time to go turkey hunting [in both seasons]”. These were also among the top three explanations offered by 1993 turkey hunters who only hunted the spring season.
- When asked why they participated only in fall season, the most frequent response from fall-only hunters was, “I didn't have enough time to go hunting” [in both seasons] (55%) or “I prefer hunting only in the fall” (25%). Time constraints were also the top reason that 1993 fall-only hunters said they did not hunt during the spring turkey season.
- In 1993, the majority of turkey hunting effort was occurring on private lands where no access fee was charged. That pattern was also evident in the 2012 data. Most (>72%) spring and fall participants reported hunting on free private land in 2012; few (<7%) reported hunting on private land for a fee.
- Approximately 68% of respondents had bagged a turkey in New York at least once in their hunting career. About one in four respondents who had hunted private land in the spring 2012 season had bagged a turkey. Spring season participants hunted fewer days on public lands and reported having less success in bagging a spring turkey on public lands compared to private lands (16% vs. 28%). Fall season participants hunted fewer days on public lands than they hunted on private lands, but reported having about the same level of success in bagging a fall turkey on public and private lands (10% vs. 12%). On average, spring hunters went afield more days than fall hunters (8.2 days vs. 6.9 days) and were more likely to have bagged a turkey (27.6% vs. 13.5%).

Satisfactions and dissatisfactions

- Results suggest that overall satisfaction with turkey hunting experiences in New York have decreased somewhat between 1993 and 2012. Overall, approximately 56% of participants were very or moderately satisfied with their personal turkey hunting experiences in New York in the last year that they hunted turkey; 25% were neither satisfied nor dissatisfied and 19% were moderately or very dissatisfied. By comparison, 70% of 1993 turkey hunters were satisfied with their turkey hunting experiences, 23.4% were neither satisfied nor unsatisfied, and 6.6% were dissatisfied.
- Satisfaction differed by season hunted; fall-only participants tended to be less dissatisfied than spring-only or spring and fall season participants. Satisfaction did not differ by region of residence or by region hunted most often.

Satisfaction with spring season regulations

- Those who went afield during spring season in 2012 were moderately or very satisfied with spring shooting hours (70%), bag limit (79%), and clarity of DEC regulations (83%). Whether grouped by region of residence, or by region where they hunted most often, majorities of spring season hunters expressed satisfaction with current spring shooting hours, bag limit and clarity of regulations.
- 67% of participants were very or moderately satisfied with the way DEC manages spring turkey hunting; 14% were moderately or very dissatisfied. Satisfaction with the way DEC manages spring turkey hunting did not differ by region of residence or by region hunted most often by spring-only hunters. Most frequently reported reasons for those dissatisfied with the way DEC manages spring turkey hunting included: not enough shooting hours in the day (33%), too few turkeys seen or heard (32%), and the season is too short (11%).
- 44% agreed with the statement, “New York’s current spring season structure (season length, bag limit, shooting hours, etc.) does not need any changes at this time.”
- A majority of spring turkey hunting participants favored maintaining the current two-day youth-only hunt prior to the start of the regular season (68%), extending spring shooting hours into the afternoon (65%), and extending spring shooting hours until sunset for the entire month of May (55%). Only 16% of spring turkey hunters agreed that they would favor restricting the spring season bag limit to one bearded bird. We found few differences when spring season hunters were grouped according to the zone where they hunted most often during the spring season.

Satisfactions with fall season regulations

- Among those who went afield during fall turkey season, over 60% were moderately or very satisfied with the season length, season opening and closing dates, and the season bag limit. Over 70% were satisfied with the clarity of fall DEC regulations. Satisfaction with fall opening dates and closing dates, bag limit, and clarity of regulations was highest among fall hunters who hunted most often in the southeastern and western zones.
- 2012 levels of satisfaction with fall season length, number of weekends, and bag limit were very similar to those observed for 1993 turkey hunters.
- Approximately 62% of participants were very or moderately satisfied with the way DEC manages fall turkey hunting in New York; 14% were moderately or very dissatisfied. We found no differences between groups when fall season hunters were grouped based on where they hunted most often. Among those who hunted the 2012 fall turkey season, the most frequently reported reasons for dissatisfaction with the way DEC manages fall turkey hunting included: too few turkeys seen or heard (27%), the fall season is too short (19%), and the potential negative impacts of fall hunting on turkey population abundance and turkey hunting in the spring (9%).

- 45% agreed with the statement, “New York’s current fall season structure (season timing and length, bag limit, etc.) does not need any changes at this time.”
- Approximately 49% of fall turkey hunting participants favored keeping the two-bird bag limit, where appropriate, but restricting take to one bird per day; 48% favored the longest fall season possible to maximize hunting opportunities. Only 15% of fall turkey hunters favored restricting the fall season bag limit to “bearded birds” only.

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Members of the Human Dimensions Research Unit assisted in a variety of ways during the course of this study. Nancy Connelly assisted with sampling strategy and data weighting. Karlene Smith implemented mailings, coordinated data coding, and completed data cleaning. Morgan Dale assisted with data coding.

The Survey Research Institute (SRI) at Cornell University completed nonrespondent follow-up interviews.

Our survey instrument and request to conduct survey research was reviewed and granted approval by the Cornell University Office of Research Integrity and Assurance (Institutional Review Board for Human Participants Protocol ID# 1006001472).

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INTRODUCTION

The historical range of the eastern wild turkey (*Meleagris gallopavo*) included New York State south of the Adirondack region. Loss of hardwood forests to logging and agriculture, unregulated hunting, and introduction of domestic poultry diseases led to the decline and extirpation of the turkey from New York by the mid-1800's (Eaton 1964). By the 1950's, habitat conditions in New York again became favorable for turkey and remnant populations from Pennsylvania gradually became reestablished along the New York-Pennsylvania border (Eaton 1964). Beginning in 1959, the New York State Conservation Department (now the New York State Department of Environmental Conservation [DEC]) supplemented this natural recolonization, through releases of trapped wild birds (Kennamer and Kennamer 1990). Secure populations of turkeys became established in western New York and turkey recolonized the state over several decades. Healthy populations of turkey now occur throughout New York State, allowing for regulated turkey hunting in all 55 upstate counties and Long Island. In 2013, over 100,000 hunters participated in New York's spring turkey hunting seasons, and over 50,000 hunters participated in the fall turkey hunting season (DEC 2013).

Only a few states have collected detailed information on turkey hunters (e.g., Missouri [Vangilder et al. 1990], Virginia [Bittner and Hite 1991], Mississippi [Forbes et al. 1996, Godwin et al. 1997], Texas [Harmel-Garza et al. 1999], Kansas [Applegate et al. 2002], Ohio [Swanson et al. 2005], and Pennsylvania [Casalena et al. 2008]). Some studies have focused on the economic impact of turkey hunting (Baumann et al. 1990, Potter et al. 1990, Cartwright and Smith 1990), while others have focused on turkey hunting satisfactions (Eichholz and Hardin 1990, Hazel et al. 1990, Siemer et al. 1995, Van Why et al. 2001, Wynveen 2005).

Prior to 1993, no research had been conducted to characterize a relatively new and expanding cadre of turkey hunters in New York. Wildlife managers in the DEC Bureau of Wildlife identified a lack of information on turkey hunters as an important impediment to informed decision making related to several aspects of turkey management (e.g., setting season lengths, dates, and bag limits). The Human Dimension Research Unit (HDRU), in collaboration with DEC, conducted research to provide quantitative information about New York turkey hunters, their hunting satisfactions, and their preferences related to turkey management (Siemer et al. 1995). Results from that study suggested that satisfaction with turkey management was high; about 74% of hunters were generally satisfied with DEC's turkey management program.

DEC has two primary goals related to turkey management: (1) protect the longterm security of the wild turkey population and (2) maintain opportunities for turkey hunters and others to enjoy the wild turkey resource now and in the future (DEC 2013). Achieving those goals simultaneously has become more difficult in recent years. Several indicators suggest that the turkey population is declining statewide (DEC 2013). In coming years, regional or statewide reductions in hunting opportunity, particularly in the fall where female turkeys (hens) may be taken, may become necessary to sustain the turkey population at a level desired by hunters and other stakeholders. But regulation changes designed to achieve turkey population objectives may entail tradeoffs that affect hunter satisfaction. DEC needs information from turkey hunters to better understand how regulation changes may affect hunter satisfaction, especially among hunter subgroups (e.g., spring hunters, fall hunters). Ideally, DEC would like to maintain a

regulatory approach that sustains turkey populations without compromising perceived hunting quality in each turkey management zone.

In January, 2013, a random sample of New York State turkey hunters was invited to participate in a mail survey, conducted by Cornell University researchers. The survey was sponsored by DEC and focused on turkey hunting activities and satisfactions in New York State.

Purpose and Objectives

The purpose of this study was to provide a snapshot of contemporary turkey hunting in New York State and collect information necessary to consider how changes in turkey hunting regulations may affect overall hunter satisfaction and perceptions of turkey hunting-season quality. Our research objectives were to: (1) characterize turkey hunters' activities, motivations, and satisfactions; and (2) determine hunter opinions related to spring hunting and fall hunting regulations and hunter safety. A better understanding of turkey hunters' activities and viewpoints provides valuable input to wildlife managers in New York State, as they strive to maintain the turkey population within socially-desired levels and maintain an environment for quality turkey hunting experiences across the state.

METHODS

Sampling

The target audience for this study was New York State hunters who held a permit to take wild turkey in the 2012 hunting license year. NYSDEC provided access to a listing of all 2012 turkey permit holders in New York, from which we drew a stratified random sample of 5,000 hunters.

We selected proportionately across all resident license types that include a turkey hunting permit (i.e., lifetime sportsman and fishing, conservation legacy and fishing, super sportsman and fishing, turkey permit [with a small game privilege]), and trapper super sportsman and fishing). We assigned all members of the database to one of five geographic strata, based on county of residence. The geographic strata were labeled: (1) Western New York, (2) Lake Plains, (3) Northern New York, (4) Southeastern New York, and (5) Long Island (Table 1). These strata correspond to fall turkey hunting zones (for this study, the St. Lawrence and Adirondack zones were combined into one stratum that we labeled as Northern New York) (Figure 1). Residents of New York City boroughs were randomly assigned to the southeastern zone or the Long Island zone before samples were drawn. Based on data from surveys of small game hunters and the locations of their hunting activity, we placed 78% of New York City residents in the southeastern zone and 22% in the Long Island zone.

We drew a random sample of 1,000 hunters in each stratum. We selected resident license holders between age 18 and 80. We did not include minors, because doing so would have required obtaining parental consent for participation in the study. We made a decision to exclude the 3% of hunting license holders in New York State who are over 80 years old; truncating the sample in this way was a reasonable approach to minimizing contact with license holders who no longer go afield.

Table 1. Definition of geographic survey strata, based on counties in which hunters resided.

Geographic strata name	Hunter county of residence
Western New York	Allegany, Cattaraugus, Chautauqua, Chemung, Livingston, Ontario, Schulyer, Steuben, Wyoming, Yates
Lake Plains	Erie, Genesee, Monroe, Niagara, Orleans, Oswego, Seneca, Wayne
Northern New York	Clinton, Essex, Franklin, Fulton, Hamilton, Herkimer, Jefferson, Lewis, Oneida, Saratoga, St. Lawrence, Warren
Southeastern New York	Albany, Broome, Cayuga, Chenango, Columbia, Cortland, Delaware, Dutchess, Greene, Madison, Montgomery, Onondaga, Orange, Otsego, Putnam, Rensselaer, Rockland, Schenectady, Schoharie, Sullivan, Tioga, Tompkins, Ulster, Washington, Westchester
Long Island	Suffolk, Nassau (*22% assigned to Long Island; 78% to S.E. New York)

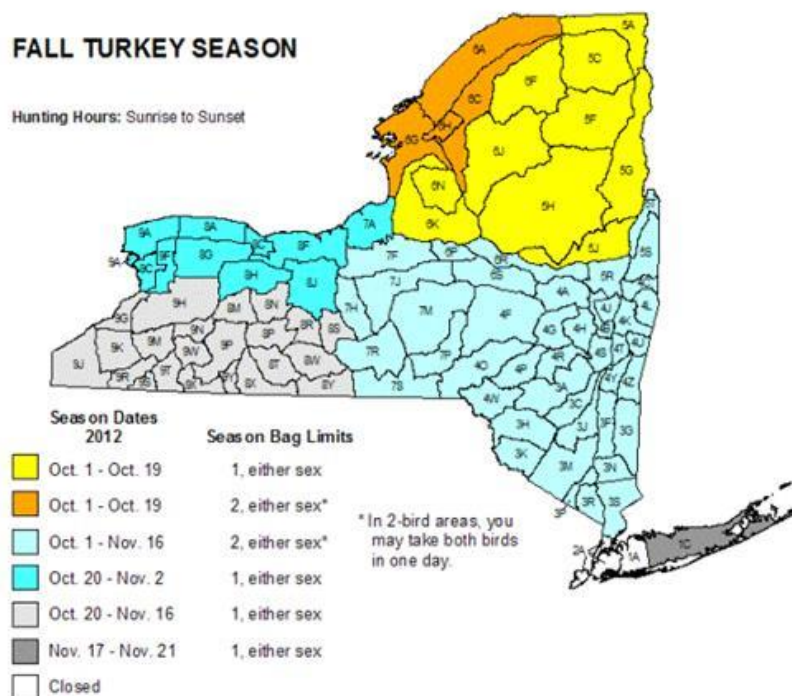


Figure 1. Fall turkey hunting zones for the 2011-2012 hunting license year (Source: NYSDEC).

Survey Instrument

A survey instrument (Appendix A) addressing study objectives was developed by members of the HDRU in the Department of Natural Resources at Cornell University in cooperation with DEC. The instrument was reviewed and granted approval by the Cornell University Office of Research Integrity and Assurance (Institutional Review Board for Human Participants, Protocol ID#1006001472).

The final survey instrument contained 99 items. To characterize turkey hunters' activities, motivations, and satisfactions (objective 1), we asked hunters about: hunting effort and practices; methods and equipment used; harvest success; type of land hunted, motivations for hunting in spring or fall only, and background information on the hunters themselves. We also inquired about participant's overall satisfaction with their last turkey hunting season and existing regulations.

To characterize hunter opinions related to spring and fall hunting regulations and hunter safety (study objective 2), we asked respondents whether they agreed or disagreed with 25 statements about current or potential turkey hunting regulations. We also asked whether they agreed or disagreed with 3 statements related to hunter safety.

Survey Implementation

We implemented the mail survey in winter, 2013. Each member of the sample was contacted up to four times (i.e., (1) an initial letter and questionnaire, (2) a reminder letter, (3) a third reminder letter and replacement questionnaire, and (4) a final reminder letter about one week after the third mailing). All survey mailings were completed between January 29, 2013 and February 26, 2013. To encourage survey response, we incorporated several characteristics of the Dillman (2000) Total Design Method, including a brief, respondent-friendly questionnaire, multiple contacts, and cover letter elements that personalized correspondence.

The Survey Research Institute at Cornell University (SRI) was contracted by HDRU to conduct telephone surveys with 50 nonrespondents in each stratum (250 interviews total). HDRU provided SRI with contact information for all nonrespondents. From that group, SRI randomly selected 1,161 hunters to be contacted by telephone. Calls were made until the target number of 50 interviews per stratum was completed. Data collection began on March 26, 2013 and was completed on April 4, 2013. A total of 250 interviews were completed.

The nonrespondent telephone interview obtained data on eight topics explored in the mail survey: years of turkey hunting in New York, whether hunters had ever taken a turkey, whether hunters had gone afield to hunt turkeys at least once in 2012, turkey seasons in which they participated (spring, fall, or both) in 2012, satisfaction with most recent personal turkey hunting experiences, and satisfaction with the way DEC manages spring and fall turkey hunting seasons.

Analysis

We used IBM SPSS Statistics 21.0 (SPSS 2012) software to calculate frequencies and measures of central tendency (e.g., mean). We placed respondents into groups (i.e., season hunted and stratum) for comparison. The Chi-square statistic was used to test for significant differences between groups of hunters at the $P \leq 0.05$ level.

Weighting to address nonresponse bias

A weight factor was created to account for a difference in age between respondents and non-respondents (differences between respondents and non-respondents are detailed in the results section). The weight factor was applied to each age group such that the proportion of respondents in each age group reflected the sample proportions. A weight factor of 1.674 was applied to respondents age 18–36, 0.982 to respondents age 36–55, and 0.781 to respondents age 56 or over. This weight factor was used to assess how adjusting age would affect results on questions related to turkey hunting activities and satisfactions.

Weighting to address sampling bias

We sampled an equal number of turkey hunting permit holders in each geographic strata ($n=1,000$), even though permit holders are not equally distributed across the state. This raises the possibility of sampling bias. To address that possibility, we developed weighting factors for each geographic strata using the formula:

$$WT_i = (\%PERMITSi_{in}STRATUM_i \times TOTALRESP) / STRATUM_iRESP,$$

where,

WT_i = weighting factor for respondents living in $STRATUM_i$

$\%PERMITSi_{in}STRATUM_i$ = proportion of all NY State resident turkey hunting permit holders age 18–80 who live in $STRATUM_i$

$TOTALRESP$ = total number of respondents from all stratum combined, and

$STRATUM_iRESP$ = number of respondents living in $STRATUM_i$.

We applied the following weight factors based on county of residence: 1.906 for Southeastern New York; 1.028 for the Lake Plains; 0.913 for Northern New York; 0.743 for Western New York; and 0.342 for Long Island.

RESULTS AND DISCUSSION

We received a total of 2,247 completed questionnaires from a pool of 5,000 eligible participants with valid addresses, yielding a response rate of 46% after deleting undeliverable questionnaires (Table 2). Twenty-five percent (n=558) of respondents reported that they had never hunted turkey (i.e., were not part of the target population) (Table 3), reducing the sample to 1,654 participants. The maximum expected margin of error on results by region of residence is $\pm 5.0\%$ (80% confidence level).

Table 2. Summary of survey response by geographic strata for the 2012 survey of turkey hunter participation in New York State.

	Geographic strata					Total
	Lake Plains	Long Island	Northern NY	Southeastern NY	West Appalachian Hills	
Total sample	1,000	1,000	1,000	1,000	1,000	5,000
Useable returns	485	403	410	456	490	2,244
Undeliverable	20	23	30	29	22	124
Return unusable	3	0	3	6	3	15
Return rate	49.5%	41.2%	42.3%	47.0%	50.1%	46.0%

Table 3. Turkey hunting activities reported by all 2013 survey respondents.

	n	Yes (%)	No (%)
Permit holders who have hunted turkey in New York one year or more	2137	74.2	25.8
Past turkey hunters who went afield to hunt turkey in New York in 2012	1654	75.0	25.0
Hunted turkey only in spring 2012	1234	40.0	60.0
Hunted turkey only in fall 2012	1234	11.3	88.7
Hunted turkey in spring and fall 2012	1234	48.6	51.4
Harvested turkey in NY	1586	68.3	31.7

Nonresponse bias analysis

We present the outcome of nonrespondent contacts in Appendix B, Table B1. Key characteristics of respondents and nonrespondents are presented in Appendix B, Table B2. Identical proportions of respondents and nonrespondents had never hunted turkeys (Table B2). Nonrespondents were less likely than respondents to have hunted turkeys in 2012 (48% vs. 75%) (Table B2).

Nonrespondents also were less likely than respondents to have hunted turkey in the past 3 years (2010–2012) (72% vs. 86%, respectively). Satisfaction with one's most recent turkey hunting experiences, as well as satisfaction with the way DEC manages fall turkey hunting seasons, was higher among nonrespondents than among respondents (Table B3).

Nonrespondents tended to be younger than respondents (mean age of nonrespondents 45.0; mean age of respondents 54.0). On average, nonrespondents also had hunted turkeys in New York for fewer years (mean 11.5 years vs. mean 14.5 years).

When using a mail survey method, it is common to find that older members of the sample are more likely than younger members to return a questionnaire (e.g., recent deer hunter [Enck et al. 2011] and angler surveys [Connelly and Knuth 2010, 2013] conducted by HDRU exhibit this bias).

In order to explore how this affected statewide survey results, we analyzed questions related to turkey hunting activities and satisfactions with and without weighting to adjust for age. We found that applying the age-cohort weight factor had little effect on the results (i.e., results changed by < 2% on most variables, and <1% on many variables). Given those outcomes, statewide results were not adjusted for age.

In the following text and tables, statewide results are reported after weighting by regional strata.

General Characteristics

The mean age of participants was 54.1 years (range 18–80 years). Age differed ($\chi^2_{10} = 37.41$, $P < 0.01$) by season hunted (Table 4); spring-only hunters were younger than fall-only hunters (mean age 49 vs. 54 years). Age did not differ by region of residence ($\chi^2_{20} = 30.73$, $P = 0.06$).

Comparisons to Siemer et al. (1995) suggest that the mean age of turkey hunters has increased since 1993. Because the 1993 turkey hunter survey included youth hunters (age 12–17), the mean age found in that study (43 years old) is not directly comparable to the mean age found in the 2012 data (54 years old). But the graying of the turkey hunter population is apparent when age cohorts of 26 years and older are compared. When only hunters age 26 or older are compared, about 23% of 1993 turkey hunters were over 55 years old. When comparing the same age cohorts, we find that over 50% of 2012 turkey hunters were over 55 years old (Table 4).

The majority of turkey hunters in New York State reside in rural areas or small towns in every region of residence except on Long Island, where more than 80% of turkey hunters live in small, medium, or large cities (Table 5). Siemer et al. (1995) found that 68% of turkey hunters living north of New York City resided in a rural area or villages of fewer than 5,000 people in 1993. In

Table 4. New York turkey hunter age by season hunted in 2012.

	Season hunted (2012)						1993-2012 turkey hunter comparisons			
	Spring only		Fall only		Spring and fall		1993 data		2012 data	
	n	%	n	%	n	%	n	%	n	%
Age										
18–25 years	38	7.5	2	1.7	41	6.6	NA	NA	NA	NA
26–35 years	47	9.3	11	9.3	56	9.3	325	21.9	166	7.9
36–45 years	103	20.3	16	13.6	80	16.2	335	22.6	303	14.4
46–55 years	159	31.4	31	26.3	173	29.5	272	18.3	536	25.4
56–65 years	107	21.1	26	22.0	147	22.7	174	11.7	476	22.5
Over 66 years	53	10.5	32	27.1	110	15.8	164	11.1	630	29.8
Total	507	100.0	118	100.0	607	100.0	1,270	100.0	2,111	100.0

(2012 Season hunted comparison: $\chi^2_{10} = 37.41$, $P < 0.01$)

Table 5. Rural versus urban background of New York turkey hunters by residence strata.

Community Size (1,000s)	Regional Strata									
	Lake Plains		Long Island		Northern NY		Southeast NY		Western NY	
	n	%	n	%	n	%	n	%	n	%
Rural	150	41.2	22	7.5	157	60.9	185	53.2	252	66.3
Village <5	43	11.8	26	8.9	46	17.8	59	17.0	77	20.3
City 5–25.9	94	25.8	108	37.0	42	16.3	54	15.5	33	8.7
City 25–99.9	34	9.3	55	18.8	11	4.3	24	6.9	17	4.5
City 100 +	43	11.8	81	27.7	2	0.8	26	7.5	1	0.3
Total	364	100.0	292	100.0	258	100.0	348	100.0	380	100.0

($\chi^2_{16} = 453.63$, $P < 0.01$)

2012, upstate turkey hunters were even more likely to reside in a rural area or village of fewer than 5,000 people (72% vs. 68%; $\chi^2_1 = 11.812$, $P < 0.001$).

We found that about 13% of all turkey hunters in 2012 belonged to turkey hunter organizations. That represents a significant increase over the rate of 6% found among turkey hunters in 1993 (13% vs. 6%; $\chi^2_1 = 39.76$, $P < 0.001$). Hunters who participated in just the 2012 spring season or both the 2012 spring and fall seasons were more likely than fall-only hunters to be members of a turkey hunter organization (15.4% vs. 4.4%, $\chi^2_1 = 11.887$, $P < 0.001$).

In addition to having a higher mean age than 1993 turkey hunters, the 2012 turkey hunter population also had a higher collective level of turkey hunting experience than the 1993 turkey hunter population. Turkey hunting was a relatively new activity in New York State in 1993; more than half (57%) of respondents had hunted turkeys from 1–5 years and only 20% had hunted turkeys for 11 or more years in New York. Turkey hunting is now a long-established activity in New York. Respondents in 2012 had hunted turkey in New York for an average of 15 years (range 1–56 years), and the majority (51%) of participants had 11 or more years of experience (27% had hunted for 1–5 years, and 23% for 6–10 years). Years of experience differed by season hunted ($\chi^2_4 = 12.67$, $P = 0.01$) (Table 6) and region ($\chi^2_8 = 21.48$, $P < 0.01$) (Table 7). Participants with 1–5 years of hunting experience were more likely to hunt fall season only (Table 6); the percentage of hunters with 11 or more years of experience was higher among Western New York hunters than Northern New York hunters (Table 6).

Over the last 5 years, participants spent an average of 8 days (range 1–31 days) and 7 days (range 1–52 days) hunting during the spring and fall seasons, respectively. About 53% of fall spring season, and 57% of fall season participants reported that the number of days they hunt each year has remained about the same over the last 5 years, but nearly one-third of spring and fall season participants said the number of days they hunt per season had decreased over the last five years (Table 8). Most participants stayed within New York to pursue turkeys; only 7% of participants had gone turkey hunting in other states in the last 5 years.

Approximately 75% of those who had hunted turkeys for 1 year or more went afield to hunt turkey in NYS in 2012 (in 1993, 85% of hunters went afield at least once). The largest proportion (49%) of 2012 participants hunted both the spring and fall seasons; 40% hunted during the spring only; few (11%) hunted only during the fall season. In 1993, 55% of active participants hunted both seasons; 32% hunted spring only and 13% hunted fall only). Differences between 1993 and 2012 hunters suggest that the proportion of spring-only turkey hunters has increased.

When asked why they participated only in spring season, the most frequent responses from spring-only hunters were, “I would rather hunt for other game in the fall” (72%), “I prefer hunting turkey only in the spring” (47%), or “I didn't have enough time to go turkey hunting [in both seasons]” (21%) (Table 9). These were also the top three explanations offered by 1993 turkey hunters who only hunted the spring season (Siemer et al. 1995).

Table 6. Years of turkey hunting experience among 2012 New York turkey hunters, by season.

Years	Season hunted					
	Spring only		Fall only		Spring and fall	
	n	%	n	%	n	%
1-5	86	17.5	33	29.5	103	18.7
6-10	115	23.4	29	25.9	127	22.8
11 or more	291	59.1	50	44.6	354	58.5
Total	492	100.0	112	100.0	578	100.0

$\chi^2_4 = 12.67, P = 0.01$

Table 7. Years turkey hunting experience by residence strata of 2012 New York turkey hunters.

Years	Regional Strata									
	Lake Plains		Long Island		Northern NY		Southeast NY		Western NY	
	n	%	n	%	n	%	n	%	n	%
1-5	93	26.3	93	32.3	70	28.2	84	25.3	82	22.3
6-10	92	26.1	69	24.0	63	25.4	71	21.4	69	18.8
11 or more	168	47.6	126	43.8	115	46.4	177	53.3	216	58.9
Total	353	100.0	288	100.0	248	100.0	332	100.0	367	100.0

$\chi^2_8 = 21.48, P < 0.01$

Table 8. Trend of 2012 turkey hunters' days spent turkey hunting over the last five years by season.

	Spring season		Fall season	
	n	%	n	%
Increased	206	14.3	127	10.1
Remained the same	764	53.1	712	56.5
Decreased	470	32.6	422	33.5
Total	1441	100.0	1261	100.0

Table 9. Spring and fall only 2012 turkey hunter participants who selected reasons for not hunting in both seasons.

Reason	Season hunted			
	Spring only (n=508)		Fall only (n=119)	
	n	%	n	%
I didn't have enough time to go turkey hunting [in both seasons]	104	20.5	77	54.6
I prefer hunting turkey only in the fall	NA	NA	30	25.4
I would rather hunt for other game in the fall (e.g., deer, waterfowl, small game)	369	72.8	NA	NA
I prefer hunting turkey only in the spring	247	47.4	NA	NA
I would rather fish in the spring	NA	NA	19	18.5
There were too few turkey around	58	11.4	13	6.8
I did not have a place to hunt	15	3.0	12	6.8
I was concerned about conflicts with other hunters	23	4.5	5	5.0
I was concerned about conflicts with non-hunters	6	1.2	1	1.7

When asked why they participated only in fall season, the most frequent responses from fall-only hunters were, “I didn’t have enough time to go hunting” [in both seasons] (55%) or “I prefer hunting only in the fall” (25%) (Table 9). Time constraints were also the top reason that 1993 fall-only hunters said they did not hunt during the spring turkey season (Siemer et al. 1995).

Most (92%) participants used shotguns on every hunt to pursue turkeys. Though hunting turkeys with a handgun (firing shot pellets) is permitted, only about 1% of participants reported hunting turkey using a handgun (Table 10).

Over 71% of participants occasionally tried to locate birds on the roost in the evening during the spring season. Half (50%) of participants had sometimes bow hunted for deer and fall turkey at the same time (and 40% of fall-only hunters bow hunted for deer and turkey at the same time on most or every hunt). Approximately 39% of participants occasionally hunted for other small game and fall turkey at the same time (Table 10).

In 1993, the majority of turkey hunting effort was occurring on private lands where no access fee was charged. That pattern was also evident in the 2012 data. Most (83% of spring season hunters, and 73% of fall season) participants reported hunting on free private land in 2012; few (<7%) reported hunting on private land for a fee (Table 11).

Overall, approximately 68% of participants had bagged a turkey in New York at least once in their hunting career. About one in four respondents who had hunted private land in the spring 2012 season had bagged a turkey. Participants hunting the spring season hunted fewer days on public lands and reported having less success in bagging a spring turkey on public lands. Fall season participants hunted fewer days on public lands, but reported having about the same level of success in bagging a fall turkey on public and private lands (10% vs. 12%). On average, spring hunters went afield more days than fall hunters (8.2 days vs. 6.9 days) and were more likely to have bagged a turkey (27.6% vs. 13.5%). (Table 11).

For spring season participants who hunted on private land where no fee was charged, the proportion of participants who harvested a turkey was positively correlated with years of turkey hunting experience ($\chi^2_2 = 15.05$; $p = 0.001$). The rate of harvest success for *spring* 2012 hunters on free private land increased from 16.7% (1-5 years hunting experience), to 20.8% (6-10 years hunting experience), to 30.7% (11 or more years hunting experience). But harvest success rate did not increase with years of hunting experience for participants hunting on public lands during the spring season ($\chi^2_2 = 2.27$; $p = 0.322$), public lands during the fall season ($\chi^2_2 = 0.97$; $p = 0.613$), or private lands during the fall season ($\chi^2_2 = 4.24$; $p = 0.120$).

Availability of electronic media and hunting-related video content has increased markedly since the New York turkey hunter survey conducted in 1994, and managers are interested in how those developments are affecting hunter recruitment, retention, and behavior. We found that friends and family remain the most important sources from which participants learn about turkey hunting: approximately 76% of participants rated “friends or family” as a moderately or very important source to learn about turkey hunting (Table 12). Over half of all respondents said that turkey hunting TV shows, DVDs or videos were moderately to very important as an information source. Over 40% of respondents said that DEC’s website was a moderately or very important

Table 10. Use of hunting equipment or methods while turkey hunting in New York in 2012.

		Frequency of use (%)		
	n	Never	Sometimes	Often / every hunt
<u>Implements used when hunting turkey</u>				
Hunting with a shotgun	1225	2.0	5.6	92.3
Hunting with a handgun (firing shot pellets)	1072	98.6	0.7	0.7
<u>Turkey hunting methods and practices</u>				
Bow hunt for deer and <i>fall turkey</i> at the same time	1150	50.0	22.7	27.3
Try to locate birds on the roost in the evening during the <i>spring season</i>	1171	28.5	43.5	28.0
Hunt for other small game and <i>fall turkey</i> at the same time	1130	61.6	24.9	13.6
Hunt turkey <i>without</i> calls or decoys during the spring season	1171	71.7	21.0	7.4
<u>Mentoring and assisting other hunters</u>				
Helping a <i>junior hunter (age 12-15)</i> hunt turkey, but not trying to bag a turkey for myself	1167	55.2	28.9	16.0
Calling for other hunters <i>after</i> I have bagged my turkey(s)	1166	55.8	31.1	13.2
Helping another adult hunter hunt turkey, but not trying to bag one for myself	1178	39.3	46.8	14.0

Table 11. Mean number days spent turkey hunting and harvest success by land type for 2012 New York turkey hunters.

	Spring season, 2012 (n=1,120)				Fall season, 2012 (n=778)			
	n	All spring hunters (%)	Mean days hunted	Bagged a turkey (%)	n	All fall hunters (%)	Mean days hunted	Bagged a turkey (%)
Public land	328	29.4	4.5	15.7	204	24.7	4.9	9.9
Private land, free	931	83.4	7.3	27.9	601	72.7	6.7	11.8
Private land, fee	72	6.5	6.9	27.9	47	5.7	5.4	11.5
All lands combined	1009	--	8.23	27.6	654	--	6.93	13.5

Table 12. Importance of sources to learn about turkey hunting.

Source	n	\bar{x}	Importance level ^a			
			Not at all important	Slightly important	Moderately important	Very important
			%	%	%	%
Friends or family	1587	3.17	9.5	14.9	25.2	50.4
DEC Hunting & Trapping Regulations Guide	1591	2.97	9.8	23.6	28.6	38.0
Turkey hunting TV programs, DVDs, Videos	1592	2.54	19.7	27.6	33.8	18.9
Turkey hunting magazines	1558	2.47	19.6	32.5	30.7	17.2
Turkey hunting books	1557	2.45	19.6	32.5	29.6	17.2
DEC website	1528	2.36	30.0	26.7	23.1	20.1
Internet (other than DEC website)	1550	2.15	37.0	26.2	2.7	14.2
Hunting club	1555	1.97	46.2	23.0	18.8	11.9

^aImportance level: 1=not at all; 2=slightly; 3=moderately; 4=very important

source of information (Table 12). Television programs and hunting videos appear to be more important information sources than Internet sources (other than the DEC website).

Satisfactions and Dissatisfactions

Results suggest that overall satisfaction with turkey hunting experiences in New York have decreased somewhat between 1993 and 2012. Overall, approximately 56% of participants were very or moderately satisfied with their personal turkey hunting experiences in New York in the last year that they hunted turkey; 25% were neither satisfied nor dissatisfied and 19% were moderately or very dissatisfied (Table 13). By comparison, 70% of 1993 turkey hunters were satisfied with their turkey hunting experiences, 23.4% were neither satisfied nor unsatisfied, and 6.6% were dissatisfied (Siemer et al., 1995).

Satisfaction differed ($\chi^2_4 = 20.46$, $P < 0.01$) by season hunted (Table 14); about 8% of fall-only participants reported dissatisfaction with their personal hunting experiences, compared to 20% of spring-only or 22% of spring and fall participants. Satisfaction did not differ by region of residence ($\chi^2_8 = 14.95$, $P = 0.06$) (Table 15) or by region hunted most often (Table 16).

Level of satisfaction with existing spring hunting season regulations

Approximately 67% of participants were very or moderately satisfied with the way DEC manages spring turkey hunting in New York; 14% were moderately or very dissatisfied (Table 13). Satisfaction with the way DEC manages spring turkey hunting in New York did not differ by region of residence ($\chi^2_8 = 8.74$, $P = 0.37$) or by region hunted most often by spring season hunters (Table 16). In addition, 44% agreed with the statement, “New York’s current spring season structure (season timing and length, bag limit, etc.) does not need any changes at this time” (18% neither agreed nor disagreed, and 39% disagreed).

Those who went afield during spring season in 2012 were moderately or very satisfied with spring shooting hours (70%), bag limit (79%), and clarity of DEC regulations (83%) (Table 17). The proportion of respondents satisfied with spring bag limit (79%) was the same as that found among 1993 turkey hunters (Siemer et al. 1994).

By region of residence, there were no statistically significant differences with satisfaction expressed about spring shooting hours ($\chi^2_8 = 6.93$, $P = 0.54$), bag limits ($\chi^2_8 = 12.74$, $P = 0.12$), or clarity of spring DEC regulations ($\chi^2_8 = 8.15$, $P = 0.42$). In other words, whether grouped by region of residence, or by region where they hunted most often, majorities of spring season hunters expressed satisfaction with current spring shooting hours, bag limit and clarity of regulations.

Majorities of spring season hunters also expressed satisfaction with current spring shooting hours, bag limit and clarity of regulations when we grouped them by region they hunted most often in 2012 (Table 18). Dissatisfaction with spring bag limit was slightly higher among those who hunted most often in the southeastern zone, though even in that region, only 11% of respondents expressed moderate or great dissatisfaction with the spring bag limit.

Table 13. Satisfaction with turkey hunting in last year hunted, and with the way DEC manages spring and fall turkey seasons, among 2012 New York turkey hunters.

	Satisfaction with last year hunted turkey		Satisfaction with the way DEC manages <i>spring</i> turkey season		Satisfaction with the way DEC manages <i>fall</i> turkey season	
	n	%	n	%	n	%
Very/Moderately satisfied	911	56.1	755	67.0	462	62.0
Neither satisfied nor dissatisfied	406	25.0	220	19.5	182	24.4
Very/Moderately dissatisfied	308	19.0	152	13.5	101	13.6
Total	1625	100.0	1127	100.0	746	100.0

Table 14. Satisfaction with participant's personal turkey hunting experiences in New York in that last year they hunted by season hunted.

Response	Season hunted					
	Spring only		Fall only		Spring and fall	
	n	%	n	%	n	%
Very or moderately satisfied	294	58.9	60	52.6	334	56.3
Neither satisfied nor dissatisfied	105	21.0	45	39.5	130	21.9
Very or moderately dissatisfied	100	20.0	9	7.9	129	21.8
Total	499	100.0	114	100.0	593	100.0

$\chi^2_4 = 20.46, P < 0.01$

Table 15. Satisfaction with participant's personal turkey hunting experiences in New York in that last year they hunted, by regional strata.

Years	Regional Strata									
	Lake Plains		Long Island		Northern NY		Southeast NY		Western NY	
	n	%	n	%	n	%	n	%	n	%
Very or moderately satisfied	179	50.0	166	56.8	157	63.3	195	56.9	209	56.0
Neither satisfied nor dissatisfied	108	30.2	70	24.0	43	17.3	86	25.1	91	24.4
Very or moderately dissatisfied	71	19.8	56	19.2	48	19.4	62	18.1	73	19.6
Total	358	100.0	292	100.0	248	100.0	343	100.0	373	100.0

$\chi^2_8 = 14.95, P = 0.06$

Table 16. Level of satisfaction with attributes of the fall turkey hunting season, grouped by region where participant hunted most often in fall 2012.

		Level of agreement (%)			χ^2	P value	
		Very, moderately satisfied	Neither satisfied nor dissatisfied	Very, Moderately dissatisfied			
personal hunting experiences in last year hunted (spring hunters only)							
	Lake Plains	64	53.1	28.1	18.8	5.222	0.516
	Northern NY	153	62.7	16.3	20.9		
	Southeastern NY	390	58.2	21.5	20.3		
	Western NY	352	55.4	21.9	22.7		
personal hunting experiences in last year hunted (fall hunters only)							
	Lake Plains	7	57.1	42.9	0.0	7.122	0.310
	Northern NY	103	65.0	19.4	15.5		
	Southeastern NY	323	54.8	24.1	21.1		
	Western NY	255	54.8	27.1	18.4		
how DEC manages <i>spring</i> turkey hunting							
	Lake Plains	110	70.0	18.2	11.8	5.105	0.530
	Northern NY	134	61.2	23.9	14.9		
	Southeastern NY	465	65.2	21.7	13.1		
	Western NY	275	69.8	16.7	13.5		
how DEC manages <i>fall</i> turkey hunting							
	Lake Plains	63	54.0	30.2	15.9	8.174	0.226
	Northern NY	83	54.2	26.5	19.3		
	Southeastern NY	315	65.4	22.5	12.1		
	Western NY	193	67.4	21.2	11.4		

Table 17. Satisfactions with aspects of the 2012 spring turkey hunting season in New York.

	Shooting hours		Bag limit		Clarity of regulations	
	n	%	n	%	n	%
Very or moderately satisfied	735	69.6	835	79.3	874	83.3
Neither satisfied nor dissatisfied	123	11.6	137	13.0	142	13.5
Very or moderately dissatisfied	198	18.8	81	7.7	33	23.1
Total	1068	100.0	1040	100.0	1115	100.0

Table 18. 2012 spring turkey hunter participants' level of satisfaction with attributes of the fall turkey hunting season, grouped by region where participant hunted most often in spring 2012.

Statements about fall turkey hunting regulations		n	Level of agreement (%)			χ^2	P value
			Very, Moderately satisfied	Neither Satisfied nor dissatisfied	Very, Moderately dissatisfied		
Shooting hours							
Lake Plains	109	75.2	11.9	12.8	10.078	0.121	
Northern NY	134	66.4	14.2	19.4			
Southeastern NY	470	66.0	13.8	20.2			
Western NY	279	74.9	9.0	16.1			
Bag limit							
Lake Plains	109	80.7	15.6	3.7	20.241	0.003	
Northern NY	134	73.9	18.7	7.5			
Southeastern NY	469	72.9	16.2	10.9			
Western NY	278	84.9	9.4	5.8			
Clarity of regulations							
Lake Plains	109	82.6	16.5	0.9	11.016	0.088	
Northern NY	134	78.4	17.2	4.5			
Southeastern NY	467	83.3	12.4	4.3			
Western NY	276	87.7	10.5	1.8			

The most frequently reported reasons for dissatisfaction with the way DEC manages spring turkey season (among the 14% of spring hunters who were dissatisfied) included: not enough shooting hours in the day (33%), too few turkeys seen or heard (32%), and the season is too short (11%) (Table 19).

In Table 20 we present opinions of spring 2012 turkey season hunters on spring hunting regulations. Results are grouped by topic and then reported in descending order, beginning with the attitude statements on which the highest proportion of spring season hunters agreed or agreed strongly.

Spring shooting hours:

A majority of hunters who participated in the spring season agreed that they would favor extending spring shooting hours into the afternoon (65%), or extending spring shooting hours until sunset for the entire month of May (55%). Only one in three agreed that they would favor extending spring shooting hours until sunset only for the last two weeks of May (Table 20).

Table 19. Aspects of the spring turkey hunting season that contributed most to participant dissatisfaction.

Aspects of spring season	n	%
Not enough shooting hours in the day	212	32.6
Too few turkeys seen or heard	211	32.3
Season too short	70	10.7
Lack of private land access	64	9.8
Conflicts with other hunters	24	3.7
Lack of public land access	30	4.5
Bag limit too low	13	2.0
Conflicts with nonhunters	12	1.8
Bag limit too high	10	1.6
Season too long	6	0.9
Total	652	100.0

Table 20. 2012 spring turkey season participants' beliefs about, and desired changes in, spring hunting regulations.

Statements about spring turkey hunting regulations	n	Level of agreement (%)		
		Agree strongly or somewhat	Neither agree nor disagree	Disagree strongly or somewhat
Spring shooting hours				
I would favor extending spring shooting hours into the afternoon	1061	65.2	11.1	23.7
I would favor extending spring shooting hours until sunset for the entire month of May	1061	55.3	11.9	32.8
I would favor extending spring shooting hours until sunset only for the last two weeks of May	1053	31.6	24.1	44.3
Youth hunt				
I would favor maintaining the current two-day youth-only hunt prior to the start of the regular season	1056	62.7	16.5	16.3
Opening spring season on a weekday				
Opening spring turkey season on a weekday minimizes conflicts with other hunters or non-hunters	1159	46.8	28.2	24.9
Opening spring turkey season on a weekday will help to make sure hunters don't harvest too many adult male turkey	1157	21.5	33.0	45.5
Opening spring season on a weekend				
Opening spring turkey season on a weekend would make the turkey season more enjoyable for me	1059	34.4	36.4	29.2
Spring bag limit				
I would favor maintaining the current bag limit (i.e., two bearded birds), but restricting take to one bird during the first half of May, and one bird in the second half of May	1160	32.3	18.0	49.7
I would favor restricting the spring season bag limit to 1 bearded bird	1049	16.1	18.4	65.5

We compared spring season hunters who were satisfied with how DEC manages the spring season (67%) to spring hunters who were dissatisfied (14%). The most pronounced difference that emerged between those groups was their interest in extending spring shooting hours. Those who were dissatisfied with the way DEC manages spring season were more likely than those who were satisfied with DEC management of spring season to be: (1) dissatisfied with spring shooting hours (40% vs. 12%; ($\chi^2_4=133.23$; $p<0.001$); (2) favor extending spring shooting hours into the afternoon (76% vs. 60%; ($\chi^2_4=42.74$; $p<0.001$); and (3) favor extending spring shooting hours until sunset for the entire month of May (73% vs. 49%; ($\chi^2_4=62.95$; $p<0.001$).

We also compared spring season hunters who agreed that no spring season changes were needed (44%), to spring hunters who disagreed (39%) (i.e., believed spring season changes were needed; over 80% of dissatisfied hunters were in this group). Those who believed changes to spring season regulations are needed were more likely than those who believed no changes are needed to favor extending spring shooting hours into the afternoon (89% vs. 40%; ($\chi^2_4=264.24$; $p<0.001$), or until sunset for the entire month of May (82% vs. 29%; ($\chi^2_4=331.62$; $p<0.001$).

Spring season dates and bag limit:

A substantial minority (47%) of spring hunters agreed that opening spring season on a weekday minimizes conflicts between turkey hunters and other hunters or nonhunters, but fewer (21%) agreed that doing so would prevent overharvest of gobblers. Hunters were divided on whether opening spring season on a weekend would make the season more enjoyable for them, with 34% agreeing and 29% disagreeing. Few hunters favored restricting the spring bag limit to one bird in the first half of the season (32%) or restricting the season bag limit to one bearded bird (16%) (Table 20).

The final page of the survey instrument provided space for respondents to offer open-ended comments on any topic related to turkey hunting in New York. Comments are summarized in Appendix C. We received 172 comments expressing desires for some type of change in turkey hunting rules or regulations. Nearly half of those comments ($n=84$) expressed a desire to open spring season approximately two weeks earlier. Suggesting that DEC open spring season earlier was the most frequent single type of open-ended comment offered by respondents, although this regulatory option was not provided on the questionnaire due to the negative biological impacts of opening the spring season prior to the median date of nest incubation (i.e., May 1st).

Regional differences:

We found few differences when spring season hunters were grouped according to the zone where they hunted most often during the spring season. The exceptions were differences between spring season hunters on two topics: whether they favor maintaining the two-day youth-only hunt; and whether they favor restricting the spring season bag limit to one bearded bird (Table 21). But despite regional differences in both cases, large majorities were either in favor (in the case of the youth-only hunt) or opposed (in the case of restricting the bag limit) (Table 21).

Table 21. 2012 spring turkey hunter participants' desired changes in existing spring turkey hunting regulations, grouped by region where participant hunted most often in spring 2012.

Statements about spring turkey hunting regulations	n	Level of agreement (%)			χ^2	P value
		Agree strongly or somewhat	Neither agree nor disagree	Disagree strongly or somewhat		
I would favor extending spring shooting hours into the afternoon						
Lake Plains	107	58.9	12.1	29.0	11.673	0.070
Northern NY	150	66.0	12.0	22.0		
Southeastern NY	373	70.5	10.7	18.8		
Western NY	340	61.8	10.0	28.2		
I would favor extending spring shooting hours until sunset for the entire month of May						
Lake Plains	107	48.6	15.0	36.4	11.615	0.071
Northern NY	150	57.3	11.3	31.3		
Southeastern NY	374	59.4	13.1	27.5		
Western NY	340	51.2	10.6	38.2		
I would favor extending spring shooting hours until sunset only for the last two weeks of May						
Lake Plains	107	28.0	28.0	43.9	4.823	0.567
Northern NY	149	28.9	27.5	43.6		
Southeastern NY	369	33.3	24.7	42.0		
Western NY	340	30.3	21.8	47.9		

Table 21. Continued.

	n	Level of agreement (%)			χ^2	P value
		Agree somewhat, strongly	Neither agree nor disagree	Disagree somewhat, strongly		
I would favor maintaining the current two-day youth only hunt prior to the start of the regular season.						
Lake Plains	107	59.8	18.7	21.5	16.869	0.010
Northern NY	148	71.6	18.2	10.1		
Southeastern NY	374	67.4	19.3	13.4		
Western NY	341	68.0	12.3	19.6		
Opening spring turkey season on a weekday minimizes conflicts with other hunters or non-hunters						
Lake Plains	107	46.7	34.6	18.7	9.949	0.127
Northern NY	150	42.0	26.0	32.0		
Southeastern NY	373	48.0	26.5	25.5		
Western NY	339	50.1	28.3	21.5		
Opening spring turkey season on a weekday will help to make sure hunters don't harvest too many adult male turkey (i.e., toms or “gobblers”)						
Lake Plains	107	25.2	38.3	36.4	10.052	0.122
Northern NY	150	14.7	32.7	52.7		
Southeastern NY	373	22.8	30.3	46.9		
Western NY	337	23.1	32.6	44.2		
Opening spring turkey season on a weekend would make the turkey season more enjoyable for me						
Lake Plains	107	35.5	37.4	27.1	8.025	0.236
Northern NY	150	29.3	43.3	27.3		
Southeastern NY	372	37.4	35.5	27.2		
Western NY	339	33.3	33.3	33.3		

Table 21. (continued).

Statements about fall turkey hunting regulations	n	Level of agreement (%)			χ^2	P value
		Agree somewhat, strongly	Neither agree nor disagree	Disagree somewhat, strongly		
I would favor maintaining the current bag limit, but restricting take to one bird during the first half of May, and one bird in the second half of May						
Lake Plains	105	27.6	21.0	51.4	10.105	0.120
Northern NY	150	24.0	20.7	55.3		
Southeastern NY	374	32.6	19.5	47.9		
Western NY	341	37.2	16.4	46.3		
I would favor restricting the spring season bag limit to 1 bearded bird						
Lake Plains	107	18.7	24.3	57.0	17.866	0.007
Northern NY	149	6.7	16.8	76.5		
Southeastern NY	370	14.9	19.2	65.9		
Western NY	337	19.3	17.5	63.2		
New York's current spring season structure does not need any changes at this time						
Lake Plains	107	43.9	24.3	31.8	11.088	0.086
Northern NY	148	48.6	14.9	36.5		
Southeastern NY	372	38.4	17.5	44.1		
Western NY	337	45.4	17.5	37.1		

Level of satisfaction with existing fall hunting season regulations

Approximately 62% of participants were very or moderately satisfied with the way DEC manages fall turkey hunting in New York; 14% were moderately or very dissatisfied (Table 13). We found no between-group differences in satisfaction with the way DEC manages fall turkey hunting in New York when fall season hunters were grouped based on where they hunted most often (Table 16).

In addition, 45% agreed with the statement, “New York’s current fall season structure (season timing and length, bag limit, etc.) does not need any changes at this time” (25% neither agreed nor disagreed, and 30% disagreed). These results were similar to those observed for spring hunters (i.e., 44% of spring season participants agreed that no change in spring season structure was needed).

Fall season participants were generally satisfied with aspects of the 2012 fall turkey hunting season in New York. Over 60% of fall season hunters were moderately or very satisfied with the season length, season opening and closing dates, and the season bag limit (Table 22). Approximately 59% were satisfied with the number of weekends in the fall season. Over 70% of fall season hunters were satisfied with the clarity of fall DEC regulations (Table 22). Siemer et al. (1994) found similar levels of satisfaction among 1993 turkey hunters (i.e., proportions of 1993 hunters who assigned a satisfactory rating was 63% for season length, 58% for season opening and closing dates; 58% for the number of weekends in the season, and 66% for fall bag limit).

We found between – group differences when fall season hunters were grouped based on the zone in which they hunted most often (Table 23). Satisfaction with fall opening dates and closing dates, bag limit, and clarity of regulations was highest among southeastern and western zone hunters (Table 23).

The most frequently reported reasons for dissatisfaction with the way DEC manages fall turkey hunting included: too few turkeys seen or heard (27%), the fall season is too short (19%), and the potential negative impacts of fall hunting on turkey population abundance and turkey hunting in the spring (9%; Table 24).

In Table 25 we present opinions of fall 2012 turkey season hunters on fall hunting regulations. Results are grouped by topic and then reported in descending order, beginning with the attitude statements on which the highest proportion of fall season hunters agreed or agreed strongly.

We compared fall season hunters who were satisfied with how DEC manages the fall season (62%) to fall hunters who were dissatisfied (14%). Dissatisfied fall hunters were more likely than satisfied fall hunters to be dissatisfied with multiple facets of the fall season, including fall season length, fall opening dates, fall closing dates, number of weekends in fall season, fall bag limit, and clarity of fall regulations. Dissatisfied fall hunters appear to be more interested than satisfied fall hunters in a longer fall season to provide more hunting opportunity, and less likely than satisfied hunters to favor certain restrictions on fall bag limit (though support for lower bag limits or restriction to bearded birds only is not high for satisfied hunters either).

Table 22. Satisfaction with aspects of the 2012 fall turkey hunting season in New York.

	Season length		Season opening dates		Season closing dates		# weekends in the season		Bag limit		Clarity of regulations	
	n	%	n	%	n	%	n	%	n	%	n	%
Very or moderately satisfied	473	67.8	464	67.1	449	65.2	408	58.6	456	65.2	506	73.1
Neither satisfied nor dissatisfied	126	18.1	137	19.8	143	20.8	165	23.7	153	21.9	151	21.8
Very or moderately dissatisfied	99	14.2	91	13.2	97	14.1	123	17.7	90	12.9	35	5.1
Total	698	100.0	692	100.0	689	100.0	696	100.0	699	100.0	692	100.0

Table 23. 2012 fall turkey hunter participants' level of satisfaction with attributes of the fall turkey hunting season, grouped by region where participant hunted most often in fall 2012.

		Level of agreement (%)				χ^2	P value
Statements about fall turkey hunting regulations		n	Very, moderately satisfied	Neither satisfied nor dissatisfied	Very, moderately dissatisfied		
Length of fall season							
	Lake Plains	68	58.8	22.1	19.1	10.357	0.110
	Northern NY	86	62.8	19.8	17.4		
	Southeastern NY	327	70.3	19.6	10.1		
	Western NY	194	73.7	14.4	11.9		
Fall season opening dates							
	Lake Plains	68	55.9	27.9	16.2	12.705	0.048
	Northern NY	86	64.0	22.1	14.0		
	Southeastern NY	318	71.7	19.8	8.5		
	Western NY	194	68.6	16.0	15.5		
Fall season closing dates							
	Lake Plains	67	56.7	26.9	16.4	14.129	0.028
	Northern NY	86	54.7	22.1	23.3		
	Southeastern NY	320	67.2	20.9	11.9		
	Western NY	192	71.9	17.2	10.9		

Table 23. Continued.

		Level of agreement (%)				χ^2	P value
Statements about fall turkey hunting regulations		n	Very, moderately satisfied	Neither satisfied nor dissatisfied	Very, moderately dissatisfied		
Number of weekends in fall season							
	Lake Plains	68	52.9	29.4	17.6	10.326	0.112
	Northern NY	86	47.7	26.7	25.6		
	Southeastern NY	322	63.0	21.7	15.2		
	Western NY	195	63.1	21.0	15.9		
Fall season bag limit							
	Lake Plains	68	54.4	23.5	22.1	17.965	0.006
	Northern NY	87	55.2	29.9	14.9		
	Southeastern NY	322	68.3	22.7	9.0		
	Western NY	196	71.9	17.3	10.7		
Clarity of fall season regulations							
	Lake Plains	66	68.2	25.8	6.1	13.284	0.039
	Northern NY	86	65.1	25.6	9.3		
	Southeastern NY	322	74.8	22.0	3.1		
	Western NY	193	79.3	18.7	2.1		
Satisfaction with the way DEC manages fall turkey hunting in New York							
	Lake Plains	63	54.0	30.2	15.9	8.174	0.226
	Northern NY	83	54.2	26.5	19.3		
	Southeastern NY	315	65.4	22.5	12.1		
	Western NY	193	67.4	21.2	11.4		

Table 24. Aspects of the fall turkey hunting season that contributed most to participant dissatisfaction.

Aspects of fall season	n	%
Too few turkeys seen and heard	66	27.0
Season too short	47	19.1
Potential negative impacts on spring turkey population and hunting	23	9.4
Season opens too late	21	8.6
Lack of private land access	20	8.2
Conflicts with other hunters	17	7.0
Lack of public land access	13	5.5
Bag limit too low	13	5.1
Potential negative impacts on hens and turkey abundance	12	4.9
Bag limit too high	5	2.2
Season too long	4	1.7
Conflicts with nonhunters	2	0.8
Season opens too soon	1	0.3
Total	244	100.0

Table 25. 2012 turkey hunter participants' desired changes in existing fall turkey hunting regulations.

Statements about fall turkey hunting regulations	n	Level of agreement (%)		
		Agree strongly or somewhat	Neither agree nor disagree	Disagree strongly or somewhat
Fall season length				
I would favor the longest fall season possible to maximize hunting opportunities	685	49.9	27.6	22.5
I would favor the longest fall season possible to minimize potential conflicts with other hunters	684	32.5	39.5	28.1
I would favor a shorter fall season to provide some opportunity, but still allow me to pursue other game such as deer or waterfowl	687	19.8	30.1	50.1
Fall bag limit				
I would favor keeping the two-bird bag limit, where appropriate, but restricting take to one bird per day.	685	49.2	22.3	28.5
I would favor restricting the fall season bag limit to one bird	685	27.6	25.0	47.4
I would favor reducing fall harvest to increase spring turkey populations	684	25.1	33.0	41.8
I would favor restricting the fall season bag limit to “bearded birds” only	686	15.3	19.5	65.2

Table25. (continued).

Statements about fall turkey hunting regulations	n	Level of agreement (%)		
		Agree strongly or somewhat	Neither agree nor disagree	Disagree strongly or somewhat
Opening fall season on a unique date				
Opening the season on a "unique date" that does not overlap another hunting season start dates will minimize conflicts with other hunters	743	44.8	33.1	22.1
Opening the season on a “unique date” that does not overlap any other hunting season start dates (e.g., Oct. 1 for bow hunting, many small game species) will prevent hunters from harvesting too many female turkey (i.e., hens)	761	29.0	34.9	36.1
Opening fall season on a weekday				
Opening fall turkey season on a weekday minimizes conflicts with other hunters or non-hunters	762	39.7	31.4	28.9
Opening fall turkey season on a weekday will help to make sure hunters don't harvest too many female turkey (i.e., hens)	766	23.7	33.3	42.9
Opening fall season on a weekend				
Opening fall turkey season on a weekend would make the turkey season more enjoyable for me	744	33.0	40.6	26.4

Fall season length:

Half (50%) of all fall hunters favored the longest fall season possible to maximize hunting opportunities. Fewer fall hunters (33%) agreed that they would favor the longest fall season possible to minimize conflicts with other hunters. Less than 20% favored shortening the fall season to allow time to pursue other game (Table 25).

Fall season bag limit:

About half (49%) of fall turkey hunting participants agreed with the statement, “I would favor keeping the two-bird bag limit, where appropriate, but restricting take to one bird per day”. Fifty-three percent of hunters who were satisfied with the way DEC manages the fall season agreed that they favored keeping the 2-bird bag limit, where appropriate; only 38% of hunters who were dissatisfied with the way DEC manages fall season agreed with the statement. About 28% of fall hunters agreed that they would favor restricting the fall bag limit to one bird, and 25% would favor reducing the bag limit to increase spring turkey populations. Only 15% of fall turkey hunters favored restricting the fall season bag limit to “bearded birds” only (Table 25).

Fall season opening day and dates:

A substantial minority of fall hunters (45%) agreed that opening fall turkey season on a unique date would minimize conflicts with other hunters, but fewer (29%) agreed that doing so would reduce harvest on hen turkeys (Table 25). Fall hunters were divided in their opinions about opening the fall season on a weekend. About equal proportions agreed or disagreed that doing so would make fall turkey hunting more enjoyable for them.

Regional differences:

We found four between-group differences when fall season hunters were grouped according to the zone where they hunted most often during the fall season (Table 26). By region hunted most often, differences emerged on attitudes toward: creating the longest fall season possible to maximize hunting opportunity; creating the longest fall season possible to minimize potential conflicts with hunters; restricting the fall bag limit to one bird; and opening the fall season on a date that does not coincide with opening dates for any other hunting seasons. Hunters in the Northern NY and Southeastern NY regions (which currently have a 2-bird bag limit in fall) were least likely to favor restricting the fall bag limit to 1 turkey. Collectively, the results in Table 26 suggest that fall hunters in every region are divided in their opinions about several fall turkey hunting regulations.

Hunter Opinions Related to Spring and Fall Hunting Safety

Hunter safety continues to be a high priority for turkey management, just as it was in 1993. At that time, 25% of turkey hunters reportedly wore hunter orange while moving, and 17% used a hunter orange tree marker or game bag during the spring season (Siemer et al. 1995).

Table 26. 2012 fall turkey hunter participants' desired changes in existing fall turkey hunting regulations, grouped by region where participant hunted most often in fall 2012.

		Level of agreement (%)				χ^2	P value
		Agree somewhat, strongly	Neither agree nor disagree	Disagree somewhat, strongly			
		n					
I would favor the longest fall season possible to maximize hunting opportunities							
	Lake Plains	64	43.8	35.9	20.3	17.025	0.009
	Northern NY	91	46.2	31.9	22.0		
	Southeastern NY	277	56.0	26.0	18.1		
	Western NY	231	42.0	27.3	30.7		
I would favor the longest fall season possible to minimize potential conflicts with other hunters							
	Lake Plains	64	31.2	39.1	29.7	24.027	0.001
	Northern NY	91	26.4	54.9	18.7		
	Southeastern NY	277	36.5	38.6	24.9		
	Western NY	230	25.7	35.7	38.7		
I would favor a shorter fall season to provide some opportunity, but still allow me to pursue other game							
	Lake Plains	64	21.9	32.8	45.3	4.880	0.559
	Northern NY	92	18.5	30.4	51.1		
	Southeastern NY	277	23.1	27.4	49.5		
	Western NY	232	16.8	34.1	49.1		

Table 26. Continued.

Statements about fall turkey hunting regulations	n	Level of agreement (%)			χ^2	P value
		Agree strongly or somewhat	Neither agree nor disagree	Disagree strongly or somewhat		
I would favor keeping the two-bird bag limit, where appropriate, but restricting take to one bird per day.						
Lake Plains	64	39.1	34.4	26.6	10.332	0.111
Northern NY	92	43.5	26.1	30.4		
Southeastern NY	277	47.7	20.6	31.8		
Western NY	231	53.2	22.9	23.8		
I would favor restricting the fall season bag limit to one bird						
Lake Plains	64	31.2	31.2	37.5	23.520	0.001
Northern NY	91	23.1	22.0	54.9		
Southeastern NY	277	23.8	22.0	54.2		
Western NY	231	34.6	30.3	35.1		
I would favor reducing fall harvest to increase spring turkey populations						
Lake Plains	64	23.4	35.9	40.6	0.661	0.995
Northern NY	91	27.5	30.8	41.8		
Southeastern NY	276	25.7	33.0	41.3		
Western NY	231	25.1	34.2	40.7		
I would favor restricting the fall season bag limit to “bearded birds” only						
Lake Plains	64	25.0	26.6	48.4	11.730	0.068
Northern NY	92	12.0	19.6	68.5		
Southeastern NY	278	14.4	21.6	64.0		
Western NY	230	13.5	17.0	69.6		

Table 26. (continued).

		Level of agreement (%)			χ^2	P value	
Statements about fall turkey hunting regulations		Agree somewhat, strongly	Neither agree nor disagree	Disagree somewhat, strongly			
	n						
Opening the season on a "unique date" that does not overlap another hunting season start dates will minimize conflicts with other hunters							
	Lake Plains	64	48.4	32.8	18.8	9.061	0.170
	Northern NY	90	53.3	32.2	14.4		
	Southeastern NY	277	44.0	31.4	24.5		
	Western NY	231	38.5	38.1	23.4		
Opening the season on a “unique date” that does not overlap any other hunting season start dates will prevent hunters from harvesting too many hens							
	Lake Plains	68	25.0	42.6	32.4	12.785	0.047
	Northern NY	95	33.7	42.1	24.2		
	Southeastern NY	283	32.5	32.2	35.3		
	Western NY	233	22.7	39.1	38.2		

Table 26. Continued.

		Level of agreement (%)			χ^2	P value	
		Agree somewhat, strongly	Neither agree nor disagree	Disagree somewhat, strongly			
		n					
Opening fall turkey season on a weekday minimizes conflicts with other hunters or non-hunters							
	Lake Plains	68	36.8	36.8	26.5	4.491	0.611
	Northern NY	93	40.9	37.6	21.5		
	Southeastern NY	284	40.8	29.2	29.9		
	Western NY	232	37.9	34.1	28.0		
Opening fall turkey season on a weekday will help to make sure hunters don't harvest too many hens							
	Lake Plains	68	25.0	38.2	36.8	2.473	0.871
	Northern NY	96	19.8	36.5	43.8		
	Southeastern NY	284	24.3	37.3	38.4		
	Western NY	234	20.9	35.9	43.2		
Opening fall turkey season on a weekend would make the turkey season more enjoyable for me							
	Lake Plains	64	35.9	43.8	20.3	5.066	0.535
	Northern NY	92	29.3	50.0	20.7		
	Southeastern NY	278	34.5	38.5	27.0		
	Western NY	230	35.2	39.1	25.7		
Current fall season structure (season timing, length, bag limit, etc.) does not need any changes at this time							
	Lake Plains	64	35.9	35.9	28.1	8.546	0.201
	Northern NY	92	38.0	29.3	32.6		
	Southeastern NY	277	47.3	24.9	27.8		
	Western NY	229	50.2	22.3	27.5		

Approximately 45% of 2012 participants agreed that opening spring turkey season on a weekday increases the safety of turkey hunting on opening day; 24% disagreed. Approximately 43% of participants agreed that wearing blaze orange in the spring while moving in the woods would increase the safety of spring turkey hunting; 38% disagreed. Approximately 48% of participants agreed that wearing blaze orange in the fall while moving in the woods would increase the safety of spring turkey hunting; 35% disagreed (Table 27).

Hunter Opinions on Number of hunting zones

In 2012, there was one, statewide hunting zone for spring turkey hunting. Respondents who hunted the spring 2012 turkey season expressed divided opinions on the question of whether they preferred one statewide zone or multiple hunting zones in the spring. Statewide, about 31% preferred one zone, 26% preferred multiple zones, and 43% had no opinion or were unsure how many zones they preferred during spring season. We found no differences between groups when hunters were grouped into the areas they hunted most often in spring (Table 28).

There were six fall turkey hunting zones in 2012. Fall hunters were divided in their opinions, with 30% preferring one fall zone, 26% preferring multiple fall zones, and 44% responding, “no opinion/not sure.” The pattern of opinion differed somewhat when fall hunters were grouped according to where they hunted most often in the fall (Table 28), but in every zone substantial portions of hunters responded, “No opinion/not sure.”

Table 27. 2012 turkey hunter participants' opinions on regulations pertaining to turkey hunting safety.

Statement	n	Level of agreement (%)		
		Agree strongly or somewhat	Neither agree nor disagree	Disagree strongly or somewhat
Opening spring turkey season on a weekday increases the safety of turkey hunting on opening day	1056	45.4	31.1	23.6
Wearing blaze orange while moving in the woods would increase the safety of <u>spring</u> turkey hunting	1054	43.4	18.7	38.0
Wearing blaze orange while moving in the woods would increase the safety of <u>fall</u> turkey hunting	703	48.2	16.9	34.9

Table 28. 2012 fall turkey hunter participants' level of satisfaction with attributes of the fall turkey hunting season, grouped by region where participant hunted most often in fall 2012.

		Level of agreement (%)				
Preference for number of spring turkey hunting zones	n	Prefer 1 zone statewide	Prefer multiple zones	No opinion, not sure	χ^2	P value
Lake Plains	106	36.8	19.8	43.4	7.300	0.294
Northern NY	145	32.4	29.7	37.9		
Southeastern NY	359	27.6	26.5	46.0		
Western NY	332	32.8	23.8	43.4		
Preference for number of fall turkey hunting zones						
Lake Plains	69	36.2	23.2	40.6	14.431	0.025
Northern NY	86	33.7	33.7	32.6		
Southeastern NY	321	23.7	25.9	50.5		
Western NY	195	32.8	22.6	44.6		

SUMMARY AND CONCLUSIONS

The turkey hunter population in New York is graying

The proportion of the turkey hunter population comprised of hunters over age 55 has increased during the two decades since the last statewide survey of hunter satisfactions. The majority of New York turkey hunters also hunt deer, and the aging of the turkey hunter population is similar to that being observed among New York deer hunters (Enck et al. 2011).

In 1993, turkey hunting was a relatively new activity in New York, the turkey population was increasing, and recruitment of turkey hunters was strong. Today, turkey hunting is an established activity, turkey populations are declining, and results from this survey suggest weak recruitment of young hunters. Results from post-season surveys have indicated that spring turkey hunter numbers since 2000 have been relatively stable, while fall hunter numbers have declined. The finding that the average age of fall-only hunters is greater than that of spring-only hunters (mean age 49 years vs. 54 years) supports the hypothesis that part of the decline in fall hunting participation may be due to attrition as hunters age-out of hunting as an activity. Differences in mean age also suggest that recruitment of younger hunters may be slightly higher among spring-only hunters than among fall-only hunters.

Turkey hunting in New York continues to be an activity practiced mainly by rural or small-town residents, on private land where no fees are charged for access

Given findings from previous surveys of turkey and deer hunters (Siemer and Brown 1995, Enck et al. 2011), it was not surprising to find that the majority of turkey hunters live in rural areas or villages of 5,000 or less. If turkey hunting continues to be primarily an activity of rural residents, then declines in rural population, or suburbanization of rural areas on the fringes of metropolitan regions in New York State, may result in lower turkey hunter recruitment and retention in the future.

Though majorities of spring and fall season hunters remain satisfied with their personal hunting experiences, overall satisfaction levels are lower than those observed in 1993

The finding that 56% of turkey hunters were satisfied with their most recent turkey hunting experiences represents a decline from the 70% satisfaction level observed among 1993 hunters (Siemer and Brown 1995). In 1993, turkey hunters were enjoying a period when the 5-year trend in spring and fall turkey harvests was increasing. In 2012, turkey hunters were experiencing spring and fall turkey harvests well below the 5- and 10-year average harvest levels. The presence of a smaller and declining population of turkeys may help explain lower levels of hunter satisfaction in 2012.

Widespread interest in expanding spring season shooting hours, and opening the spring season in April, create a need for more communication about justification for current spring season shooting hours and opening date

Our findings document a strong hunter interest in extending spring season shooting hours and opening the spring season about two weeks earlier (mid-April). Hunters who reported that they are dissatisfied with the way DEC manages spring turkey hunting were most likely to desire changes in season timing and shooting hours, but many currently satisfied spring hunters also expressed interest in an earlier spring season and longer shooting hours. DEC describes the rationale for current spring season timing and shooting hours on the turkey hunting pages of its website (excerpted below).

The timing of the spring hunting season coincides with the breeding season for wild turkeys. There is quite a bit of variation in the timing of breeding as you move from southern latitudes (earlier breeding, nesting, and hatching in the southern U.S.) to northern latitudes (later breeding, nesting, and hatching in New York and the northeast). The goal for managing the spring hunting season is to give hunters the greatest amount of opportunity to go afield and harvest a bird, while minimizing the risk to nesting hens, causing minimum disruption to breeding behavior, and minimizing the risk of overharvest. To do this, we open the spring season near the median date for the onset of incubation (when hens are on nests). A recent study by Virginia Tech looking at timing of turkey hunting seasons in the northeastern U.S. found that the timing of New York's spring season was ideal based on data for breeding and nesting turkeys in our region.

... One way we try to protect hens in the spring is to restrict shooting hours. The current shooting hours from ½-hour before sunrise until noon are intended to protect nesting hens because incubating hens (hens sitting on eggs in a nest) tend to leave the nest to feed in the afternoon. If hunters are afield in the afternoon, the likelihood that a hen is killed, either accidentally (mistaken for a gobbler) or illegally ("poaching") may increase. The killing of hens, either illegal or accidental, can have serious impacts on turkey populations, and at high levels (for example, if 10% or more of adult hens are killed annually), it will reduce rates of population growth. Unfortunately, these issues are difficult to measure and control, so we limit shooting hours to try to minimize any potential negative impacts. Research in states like Missouri, Virginia, and West Virginia has shown that poaching can have a negative effect on population growth, but we do not know if "all-day" spring hunting (sunrise to sundown) would result in many more hens being killed either accidentally or illegally. Other concerns related to all-day hunting include disturbing birds when they are going to the roost in the evening, the potential for people to shoot birds while they are roosted in trees at dusk, and disruption of traditional spring hunting activities such as "roosting" birds at dusk (locating birds at a distance by enticing them to gobble while on the roost).

Turkey Harvest Management: Management
Considerations for the Spring Season, NYSDEC
<<http://www.dec.ny.gov/outdoor/48823.html>>

Increasing awareness of, or understanding about, the rationale behind decisions about season timing and shooting hours could alleviate some hunting dissatisfaction among spring season participants. Our survey findings highlight the need for effective communication about the reasons for current spring season dates and shooting hours. Given the importance of this topic, DEC should consider expanding efforts to communicate with turkey hunters about these topics.

A majority of fall season hunters are satisfied with current fall hunting regulations, and changes in any particular rule/regulation will not uniformly benefit currently dissatisfied fall hunters

We found that about 14% of fall hunters were moderately or very dissatisfied with the way DEC manages fall turkey hunting, and about one in three fall season hunters disagreed with the statement, "New York's current fall season structure (season timing and length, bag limit, etc.) does not need any changes at this time." Changes of some sort would be needed to increase hunting satisfaction among this subgroup of fall turkey hunters. But survey findings, and the fact that New York has multiple fall hunting zones with different season structures, suggest that any given change is likely to enhance satisfaction for some fall hunters, while detracting from satisfaction for others. These complexities make it challenging to determine what types of changes in fall season structure would increase aggregate hunter satisfaction, without compromising the longterm security of the turkey population. DEC is currently working with the New York State Cooperative Fish and Wildlife Research Unit (NYSCFWRU) to address this challenge, using data on hunter values obtained in a separate turkey hunter survey that was completed in 2012.

One characteristic shared among both spring and fall hunters is the desire to observe more wild turkeys on the landscape. Regulations that maximize wild turkey populations will need to be balanced against hunter desires for opportunities to go afield and the chance to harvest a bird.

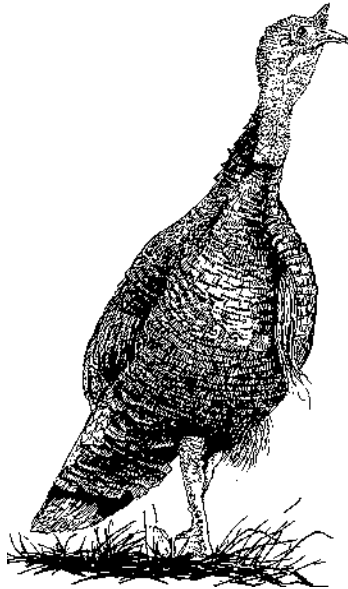
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Turkey Hunting in New York: A survey of hunter activities and views on regulations



Department of
Environmental Conservation

and



Cornell University
Human Dimensions Research Unit

Turkey Hunting in New York:

A survey of hunter activities and views on regulations

Research conducted for the New York State
Department of Environmental Conservation (NYSDEC)

by the
Human Dimensions Research Unit
Department of Natural Resources
Cornell University

We would like to learn about your participation in and opinions about turkey hunting in New York State. This type of information will help the NYSDEC to make informed decisions about the turkey management program.

Please complete this questionnaire as soon as you can, seal it with the white re-sealable label provided, and drop it in any mailbox; return postage has been paid. We are interested in learning about your experiences and opinions. Your participation in this survey is voluntary, but we sincerely hope you will take just a few minutes to answer our questions. Your identity will be kept confidential and the information you give us will never be associated with your name.

THANK YOU FOR YOUR HELP!

YOUR TURKEY HUNTING BACKGROUND

- 1. How many years have you gone afield hunting turkey in New York?** *(If you have never hunted turkey in New York, write "0".)*

_____ years → → IF "0", STOP HERE AND RETURN YOUR QUESTIONNAIRE

- 2. Over the last 5 years, what is the average number of days you have hunted during the spring and fall turkey seasons in New York?** *(If you have not hunted during that season in the last 5 years, write "0".)*

_____ days during the spring season

_____ days during the fall season

- 3. Over the last 5 years, what has been the trend in the number of days you hunted for turkey each year in New York?** *(Please check [✓] one box for each hunting season.)*

My days of <u>spring</u> hunting have:	My days of <u>fall</u> hunting have:
<input type="checkbox"/> increased <input type="checkbox"/> remained the same <input type="checkbox"/> decreased <input type="checkbox"/> does not apply to me (I have hunted spring season fewer than 5 years)	<input type="checkbox"/> increased <input type="checkbox"/> remained the same <input type="checkbox"/> decreased <input type="checkbox"/> does not apply to me (I have hunted fall season fewer than 5 years)

- 4. Have you hunted turkey in other states during the last 5 years?**

☐ Yes →→ Please specify states: _____
☐ No

- 5. Have you ever harvested a wild turkey in New York State?**

☐ Yes →→ IF YES, how many turkeys have you taken in New York since you started hunting? _____ turkeys
☐ No

YOUR TURKEY HUNTING IN NEW YORK IN 2012

The questions in this section pertain to the spring and fall turkey seasons in New York during calendar year 2012 specifically.

6. Did you go hunting for turkey at least once in New York State during 2012?

- ☐ Yes →→ IF YES, CONTINUE WITH QUESTION 7
☐ No →→ IF NO, In what year did you
last hunt for turkey? **Year** _ _ _ _

(If you did not hunt in 2012, please skip to question 12.)

7. During 2012, did you hunt turkey in the spring, fall, or both?

- ☐ Spring 2012 season only
☐ Fall 2012 season only
☐ Spring and fall 2012 seasons

8. If you hunted only in spring or only in fall during 2012, why didn't you hunt in both seasons?

(Check [✓] all that apply.)

- ☐ I didn't have enough time to go turkey hunting
☐ There were too few turkey around
☐ I did not have a place to hunt
☐ I was concerned about conflicts with other hunters
☐ I was concerned about conflicts with non-hunters
☐ I would rather hunt for other game in the fall (e.g., deer, waterfowl, small game)
☐ I would rather fish in spring
☐ I prefer hunting turkey only in the spring
☐ I prefer hunting turkey only in the fall
☐ Other _____

9. How often did you use the following hunting methods or equipment while turkey hunting in New York in 2012? (Check [✓] one box per line.)

Methods or Equipment	Frequency of use during your hunts in 2012			
	Never	Sometimes	Often	Every hunt
Hunting with a shotgun	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hunting with a handgun (firing shot pellets)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bow hunt for deer and <u>fall turkey</u> at the same time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hunt for other small game and <u>fall turkey</u> at the same time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Try to locate birds on the roost in the evening during the <u>spring season</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hunt turkey <i>without</i> calls or decoys during the spring season	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helping a <u>junior hunter (age 12-15)</u> hunt turkey, but not trying to bag a turkey for myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helping another adult hunter hunt turkey, but not trying to bag one for myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calling for other hunters <u>after</u> I have bagged my turkey(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. In which New York State (NYS) county did you spend the majority of your time hunting turkey during the 2012 spring and fall seasons? (If you do not know the county name, write in a city or village near where you hunted. If you did not hunt turkey during that season, write "NA.")

Turkey hunting season NYS County you hunted most often

Spring 2012 _____

Fall 2012 _____

11. Please indicate the number of days you hunted turkey on each of the following land types during the fall and spring seasons in 2012. Then, check [✓] "YES" or "NO" to indicate whether you bagged a turkey on one of those land types that season. (If you hunted turkey on more than one land type in a given day, assign that day's hunting to the area where you stayed the longest. If you did not hunt a particular season or type of land, write "0" on that line.)

Land type	<u>Spring season, 2012</u>		<u>Fall season, 2012</u>	
	Days hunted	Bag a turkey?	Days hunted	Bag a turkey?
Public land (federal, State, county, etc.)	_____	___Yes ___No	_____	___Yes ___No
Private land for free	_____	___Yes ___No	_____	___Yes ___No
Private land for pay [e.g., leased land, shooting preserves]	_____	___Yes ___No	_____	___Yes ___No

12. Please indicate the degree to which you were satisfied or dissatisfied with your personal turkey hunting experiences in New York in the last year that you hunted turkey. (Check [✓] one box.)

- ☐ Very satisfied
- ☐ Moderately satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Moderately dissatisfied
- ☐ Very dissatisfied

YOUR VIEWS ON TURKEY HUNTING REGULATIONS

The following questions will help turkey managers understand hunters' views on the structure of spring and fall turkey hunting seasons in New York. This information will serve as one source of input when managers consider potential changes in turkey hunting regulations.

Answer the following questions for the count(ies) in which you spend the majority of your time turkey hunting. If you only hunt one season (spring or fall), then only fill out the questions pertaining to that season. If you hunt during both the spring and fall season, complete both sections.

SPRING Turkey Hunting Seasons

13. Did you hunt turkey during the 2012 spring season?

☐ Yes

☐ No → IF NO, SKIP TO QUESTION 19

14. How satisfied were you with each of the following aspects of the 2012 spring turkey hunting season in New York? (Check ☐ one box per line.)

	Very satisfied	Moderately satisfied	Neither satisfied nor dissatisfied	Moderately dissatisfied	Very dissatisfied
Shooting hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bag limit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clarity of regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15. Season regulations can be tailored to take advantage of differing turkey populations and hunter densities across the state. Which of the following regulatory options would you most prefer?
(Check [✓] one box.)

- ☐ One spring hunting zone statewide, with the same season timing, length, and bag limit across the state.
- ☐ Two or more spring hunting zones across the state, each with different season timing, season lengths, and bag limits.
- ☐ No opinion/not sure.

16. Please choose the response that most clearly reflects your agreement or disagreement with each statement. (Check [✓] one box per line.)

Spring season characteristics	Agree strongly	Agree somewhat	Neither agree nor disagree	Disagree somewhat	Disagree strongly
Opening spring turkey season on a weekday increases the safety of turkey hunting on opening day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wearing blaze orange while moving in the woods would increase the safety of spring turkey hunting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opening spring turkey season on a weekday minimizes conflicts with other hunters or non-hunters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opening spring turkey season on a weekday will help to make sure hunters don't harvest too many adult male turkey (i.e., toms or "gobblers")	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opening spring turkey season on a <u>weekend</u> would make the turkey season more enjoyable for me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would favor extending spring shooting hours into the afternoon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Spring season characteristics	Agree strongly	Agree somewhat	Neither agree nor disagree	Disagree somewhat	Disagree strongly
I would favor maintaining the current bag limit (i.e., two bearded birds), but restricting take to one bird during the first half of May, and one bird in the second half of May	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would favor extending spring shooting hours until sunset <u>for the entire month of May</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would favor extending spring shooting hours until sunset <u>only for the last two weeks of May</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would favor restricting the spring season bag limit to 1 bearded bird	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would favor maintaining the current two-day youth-only hunt prior to the start of the regular season	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New York's current spring season structure (season length, bag limit, shooting hours, etc.) does not need any changes at this time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. How satisfied are you with the way DEC manages spring turkey hunting in New York? (Check [☒] one box.)

- ☐ Very satisfied
- ☐ Moderately satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Moderately dissatisfied
- ☐ Very dissatisfied

18. If you reported some degree of dissatisfaction for the previous question, which one aspect of the spring turkey hunting season contributes most to your dissatisfaction? (Check [✓] ONLY one box.)

<input type="checkbox"/> Season is too long	<input type="checkbox"/> Conflicts with other hunters
<input type="checkbox"/> Season is too short	<input type="checkbox"/> Conflicts with non-hunters
<input type="checkbox"/> Lack of access to private land	<input type="checkbox"/> Bag limit too low
<input type="checkbox"/> Lack of access to public land	<input type="checkbox"/> Bag limit too high
<input type="checkbox"/> Not enough shooting hours in the hunting day	<input type="checkbox"/> Too few turkeys seen or heard

FALL Turkey Hunting Seasons

19. Did you hunt turkey during the 2012 fall season?

- ☐ Yes
☐ No →→SKIP TO QUESTION 25

20. How satisfied were you with each of the following aspects of the 2012 fall turkey hunting season in New York last year? (Check [✓] one box per line.)

	Very satisfied	Moderately satisfied	Neither satisfied nor dissatisfied	Moderately dissatisfied	Very dissatisfied
Length of season	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Season opening dates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Season closing dates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of weekends in the season	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bag limit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clarity of regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

21. Season regulations can be tailored to take advantage of differing turkey populations and hunter densities across the state. Which of the following regulatory options would you most prefer?
(Check [✓] one box.)

- ☐ One fall hunting zone statewide, with the same season timing, length, and bag limit across the state.
- ☐ Two or more fall hunting zones across the state, each with different season timing, season lengths, and bag limits.
- ☐ No opinion/not sure.

22. Please choose the response that most clearly reflects your agreement or disagreement with each statement. (Check [✓] one box per line.)

Fall season characteristics	Agree strongly	Agree somewhat	Neither agree nor disagree	Disagree somewhat	Disagree strongly
Wearing blaze orange while moving in the woods would increase the safety of fall turkey hunting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opening fall turkey season on a weekday minimizes conflicts with other hunters or non-hunters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opening fall turkey season on a weekday will help to make sure hunters don't harvest too many female turkey (i.e., hens)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opening the season on a "unique date" that does not overlap any other hunting season start dates (e.g., Oct. 1 for bow hunting, many small game species) will prevent hunters from harvesting too many female turkey (i.e., hens)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Fall season characteristics	Agree strongly	Agree somewhat	Neither agree nor disagree	Disagree somewhat	Disagree strongly
Opening the season on a “unique date” that does not overlap any other hunting season start dates will minimize conflicts with other hunters.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opening fall turkey season on a <u>weekend</u> would make the turkey season more enjoyable for me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would favor reducing <u>fall harvest</u> to increase <u>spring turkey populations</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would favor a shorter fall season to provide some opportunity, but still allow me to pursue other game such as deer or waterfowl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would favor the longest fall season possible to maximize hunting opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would favor the longest fall season possible to minimize potential conflicts with other hunters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would favor restricting the fall season bag limit to one bird	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would favor keeping the two-bird bag limit, where appropriate, but restricting take to one bird per day.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would favor restricting the fall season bag limit to “bearded birds” only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New York’s current fall season structure (season timing and length, bag limit, etc.) does not need any changes at this time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

23. How satisfied are you with the way DEC manages fall turkey hunting in New York? (Check [☐] one box.)

- ☐ Very satisfied
- ☐ Moderately satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Moderately dissatisfied
- ☐ Very dissatisfied

24. If you marked “dissatisfied” for the previous question, which one aspect of the fall turkey hunting season contributes most to your dissatisfaction? (Check [☐] *ONLY* one box.)

- | | |
|--|---|
| <input type="checkbox"/> Season is too long | <input type="checkbox"/> Conflicts with other hunters |
| <input type="checkbox"/> Season is too short | <input type="checkbox"/> Conflicts with non-hunters |
| <input type="checkbox"/> Lack of access to private land | <input type="checkbox"/> Bag limit too low |
| <input type="checkbox"/> Lack of access to public land | <input type="checkbox"/> Bag limit too high |
| <input type="checkbox"/> Season opens too soon | <input type="checkbox"/> Too few turkeys seen or heard |
| <input type="checkbox"/> Season opens too late | <input type="checkbox"/> Potential negative impacts on <u>spring</u> turkey populations and hunting |
| <input type="checkbox"/> Potential negative impacts on hens and turkey abundance | |

BACKGROUND INFORMATION

25. For you, how important are the following as sources to learn about turkey hunting? (Check [✓] one box per line.)

Source	Not at all important	Slightly important	Moderately important	Very important
Friends or family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turkey hunting books	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turkey hunting magazines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DEC Hunting & Trapping Regulations Guide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DEC website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turkey hunting TV programs/DVDs/Videos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hunting club	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internet (other than DEC website)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

26. How would you describe the area in which you lived in 2012? (Check [✓] one box.)

- ☐ Rural
- ☐ Village or hamlet of under 5,000 people
- ☐ Village or city of 5,000 to 24,999 people
- ☐ City of 25,000 to 99,999 people
- ☐ City of 100,000 people or more

27. Do you belong to any national, state, or local organizations related to turkey hunting or turkey management?

- ☐ Yes
- ☐ No

THANK YOU FOR YOUR PARTICIPATION!

(Please use the space below if you wish to offer additional comments on turkey hunting in New York.)

To return this questionnaire, simply seal it and drop it into the nearest mailbox. Postage has already been provided.

APPENDIX B Nonrespondent–respondent comparison tables

Table B1. Outcome of telephone contacts with survey nonrespondents.

Outcome	Geographic strata					Total
	Lake Plains	Western NY	Northern NY	South- eastern NY	Long Island	
Completed survey	50	50	50	50	50	250
Pending – Called less than 5 times without resolution	119	117	134	100	153	623
Inactive – Called 5 or more times without resolution	0	0	6	25	3	34
Phone number not in service, or incorrect	42	55	54	55	35	241
Too ill – Incapable of responding	0	0	3	1	0	4
Returned survey by mail	1	1	0	2	2	6
Refused to participate	0	0	0	1	2	3
Total	212	223	247	234	245	1161

Table B2. Mean hunting activity between 2012 New York turkey hunter nonrespondents and respondents.

	Nonrespondents (unweighted)			Respondents (unweighted)			χ^2	P value
	n	Yes (%)	No (%)	n	Yes (%)	No (%)		
Have hunted turkey in NY	250	74.4	25.6	2144	74.2	25.8	0.004	0.947
Hunted turkey in NY in 2012	186	47.8	52.2	1654	75.0	25.0	61.654	<0.001
Hunted turkey in spring 2012	89	79.8	20.2	1234	88.7	11.3	6.223	0.012
Hunted turkey in fall 2012	89	53.9	46.1	1234	60.0	40.0	1.255	0.262
Harvested turkey in NY	186	54.3	45.7	1663	67.9	32.1	14.004	<0.001

Table B3. Mean 2012 New York turkey hunter satisfactions between non-respondents and respondents.

	Satisfaction with last year hunted turkey ^a				Satisfaction with the way DEC manages <i>spring</i> turkey season ^b				Satisfaction with the way DEC manages <i>fall</i> turkey season ^c			
	Non- respondents		Respondents		Non- respondents		Respondents		Non- respondents		Respondents	
	n	%	n	%	n	%	n	%	n	%	n	%
Very/Moderately satisfied	133	71.5	909	56.2	55	78.6	745	66.9	38	79.2	470	61.5
Neither satisfied nor dissatisfied	20	10.8	398	24.6	7	10.0	219	19.7	6	12.5	188	24.6
Very/Moderately dissatisfied	33	17.7	310	19.2	8	11.4	150	13.5	4	8.3	106	13.9
Total	186	100.0	1617	100.0	70	100.0	1114	100.0	48	100.0	764	100.0

^a $\chi^2_2 = 20.80$, $p < 0.001$

^b $\chi^2_2 = 4.76$, $p = 0.093$

^c $\chi^2_2 = 6.04$, $p = 0.049$

APPENDIX C OPEN-ENDED RESPONDENT COMMENTS

Table C1. Open-ended comments offered by respondents to phase 1 2012 turkey hunter survey.

Comment category	Number of comments
Desired hunting regulation changes	172
Most frequent comments:	
Open spring season earlier	84
Extend spring shooting hours	26
Lengthen fall season	12
Open a spring season on Long Island	7
Lengthen fall season on Long Island	6
Turkey population decline comments and questions	75
Comments related to hunting recruitment and retention	29
Reasons why hunters choose to hunt only in spring or fall season	22
Overall satisfaction with turkey hunting experiences or management in New York	18
Access for turkey hunting	15
Anti-gun, anti-hunting concerns and comments	5
Comments about environmental conservation officers (ECO's) or law enforcement	5
Need more or better turkey stocking programs	4
Comments about turkey-related crop damage	2
Improving habitat for turkeys	1
Opinions related to hunter safety	1
Other kinds of comments	47